

## THE SPHINX CODE FOR SIMULATION OF PROCESSES IN X-RAY EMULSION CHAMBERS

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A three-dimensional Monte Carlo code SPHINX (Simulation of Processes of Hadron and lepton INteractions in X-ray emulsion chamber) is elaborated for simulations of processes in X-ray emulsion chambers and measurement procedures used in experiments both aboard stratospheric balloons and at mountain altitudes. The code is applicable from  $\sim 10$  MeV to extremely high energies ( $\sim 10$  PeV) for arbitrary type of chamber design including lead, carbon, rubber, air, e.g. The code can be used for investigations of both the primary cosmic ray radiation by balloon-borne small emulsion chambers at energies from  $\sim 1$  to  $\sim 1000$  TeV and  $\gamma$ -ray – hadron families by mountain-based large X-ray emulsion chambers at energies of up to several PeV. Results of comparison of simulations by SPHINX with other calculated and experimental data are presented. The code is easy in use and accessible via Internet.